A clean version of the amended claims is provided in the attached Appendix.

By this Amendment, Applicants have made a sincere effort to place the above-identified application in condition for immediate allowance. If the Examiner believes that a teleconference would be useful in expediting the prosecution of this application, the official is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Respectfully submitted,
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Date: April 7, 2003

Atty. Dkt. No. D3953-RE

APPENDIX

25. A diode laser system, comprising:

a laser head assembly generating an output beam, the laser head assembly including:

M modules which generate M laser beams, wherein each of said M laser beams has a different wavelength; and

only M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam,

where M is an integer > 2.

26. A diode laser system, comprising:

a laser head assembly which generates an output beam, the laser head assembly including:

M modules which generate M laser beams, wherein each of said M laser beams occupies a different wavelength band;

M-R dichroic filters, wherein each of said M-R dichroic filters transmits at least a respective one of said M laser beams occupying a given wavelength band and reflects all other of said M laser beams not occupying the given wavelength band; and

an optical device which combines said M laser beams to thereby produce said output beam,

wherein:

M and R are positive integers;

R - M is greater than or equal to 2; and

M is an integer ≥ 2.

31. A laser head assembly which generates an output beam including M laser beams,

comprising:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength; and

no more than M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

wherein M is an integer > 2.

33. A method for generating a high energy laser beam, comprising:

(a) generating P collimated laser beams, each of the P collimated laser beams having an wavelength within an Mth wavelength band;

(b) repeating step (a) M times so as to produce MxP collimated laser beams grouped into M different wavelength bands; and

(c) coupling said MxP collimated laser beams into an optical path to produce a high energy beam,

wherein M and P are integers ≥ 2.

36. A diode laser system, comprising:

laser head assembly (LHA) which generates an output beam, the LHA including:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;

M-1 first dichroic filters defining an optical waveguide for directing all of said M laser beams into the optical path, wherein each of said M-1 dichroic filters transmits a corresponding one of said M laser beams and reflects all other said M laser beams; and

a fiber coupling device disposed adjacent to the optical path for collecting said M laser beams to thereby produce an output beam;

where M is an integer ≥ 2.

40. A diode laser system, comprising:

first means for generating M first laser beams, wherein each of said M first laser beams has a different single wavelength;

M-l first filter means defining a first optical waveguide for directing all of said M first laser beams into a first optical path, wherein each of said M-1 filter means transmits a corresponding one of said M first laser beams and reflects all other said M first laser beams;

second means for generating M second laser beams, wherein each of said M second laser beams has a different single wavelength;

M-1 second filter means defining a second optical waveguide for directing all of said M second laser beams into a second optical path, wherein each of said M-1 second filter means transmits a corresponding one of said M second laser beams and reflects all other said M second laser beams;

polarization combining means disposed at the intersection of said first and second optical paths for coupling said M first and said M second laser beams into said second optical path to thereby produce 2M polarization coupled laser beams; and

fiber coupling means disposed adjacent to said second optical path for collecting said 2M polarization coupled laser beams to thereby produce an cutout laser beam,

wherein M is a integer $\geq$ 2.

41. A method for generating a high energy laser beam, comprising:

(a) generating P collimated laser beams, each of the P collimated laser beams having an wavelength within an Mth wavelength band;

(b) repeating step (a) M times so as to produce MxP collimated laser beams grouped into M different wavelength bands;

(c) coupling said MxP collimated laser beams into an optical path; and

(d) coupling said MxP collimated laser beams into an ith optical fiber to thereby produce a corresponding ith output laser beam, where i = l to N;

where M, N and P are positive integers and both M and P $\geq$ 2.